

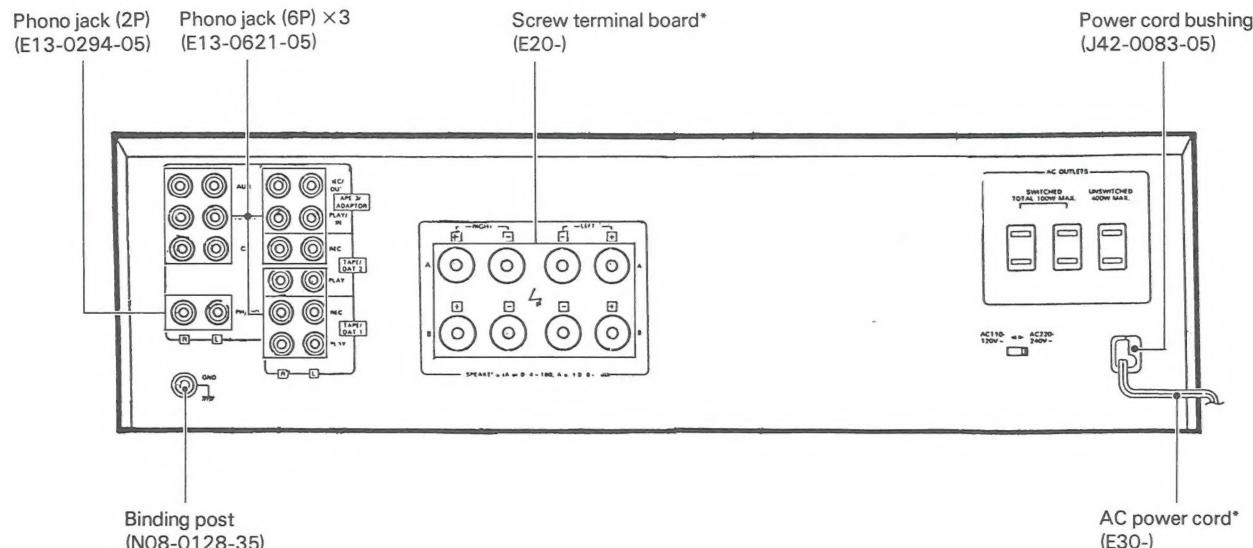
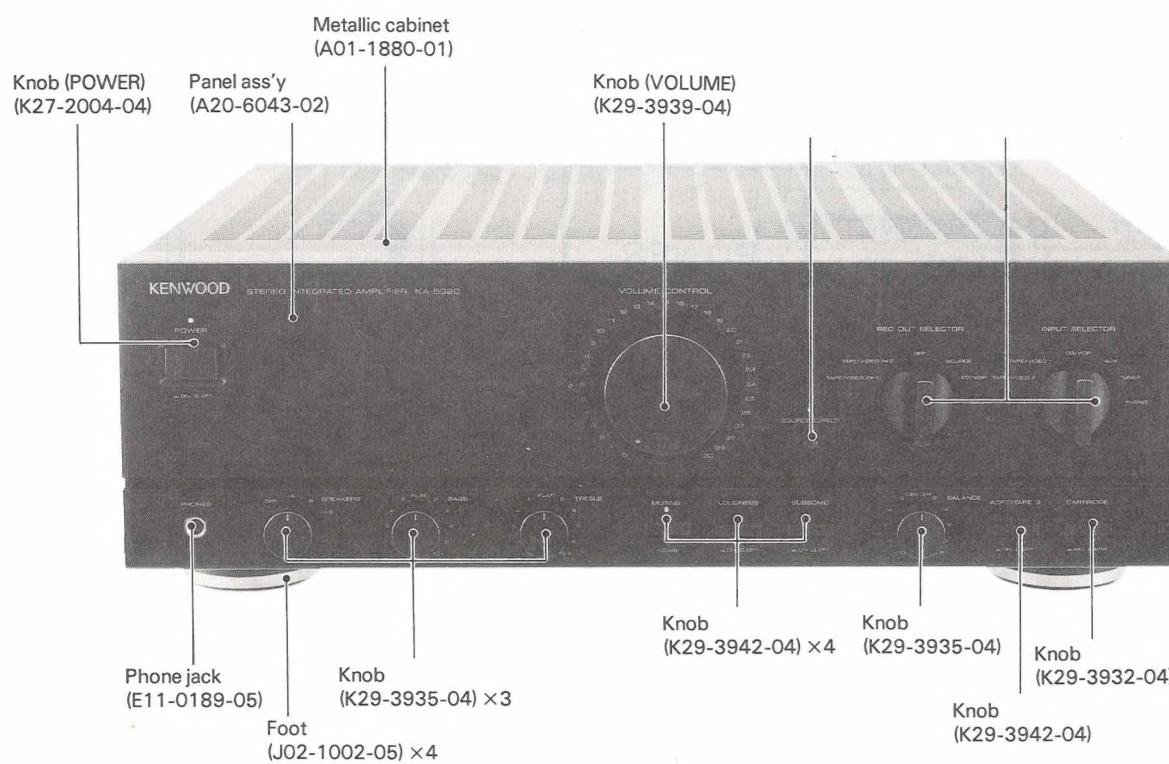
STEREO INTEGRATED AMPLIFIER

KA-5020

SERVICE MANUAL

KENWOOD

©1990-5 PRINTED IN JAPAN
B51-4049-00(S)1621



*Refer to parts list on page 15.

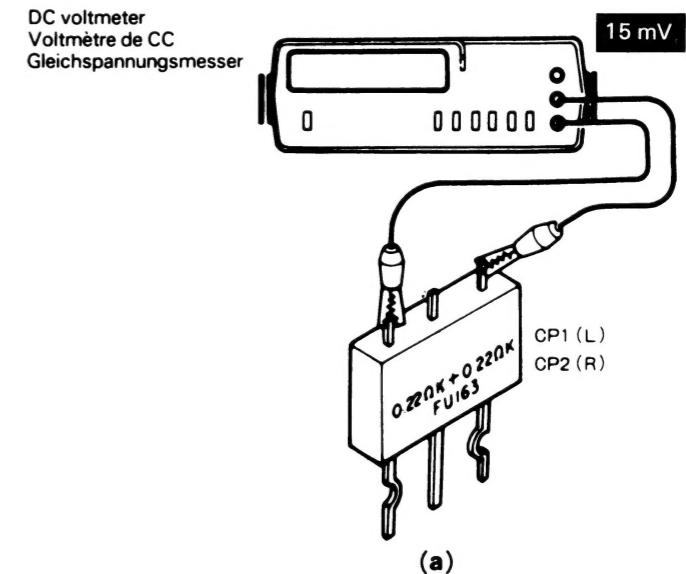
KA-5020

ADJUSTMENT/REGLAGE/ABGLEICH

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	IDLE CURRENT	—	Connect a DC voltmeter across CP1 (CP3) CP2 (CP4)	VOLUME: 0	VR1 (L) VR2 (R)	15 mV	(a)

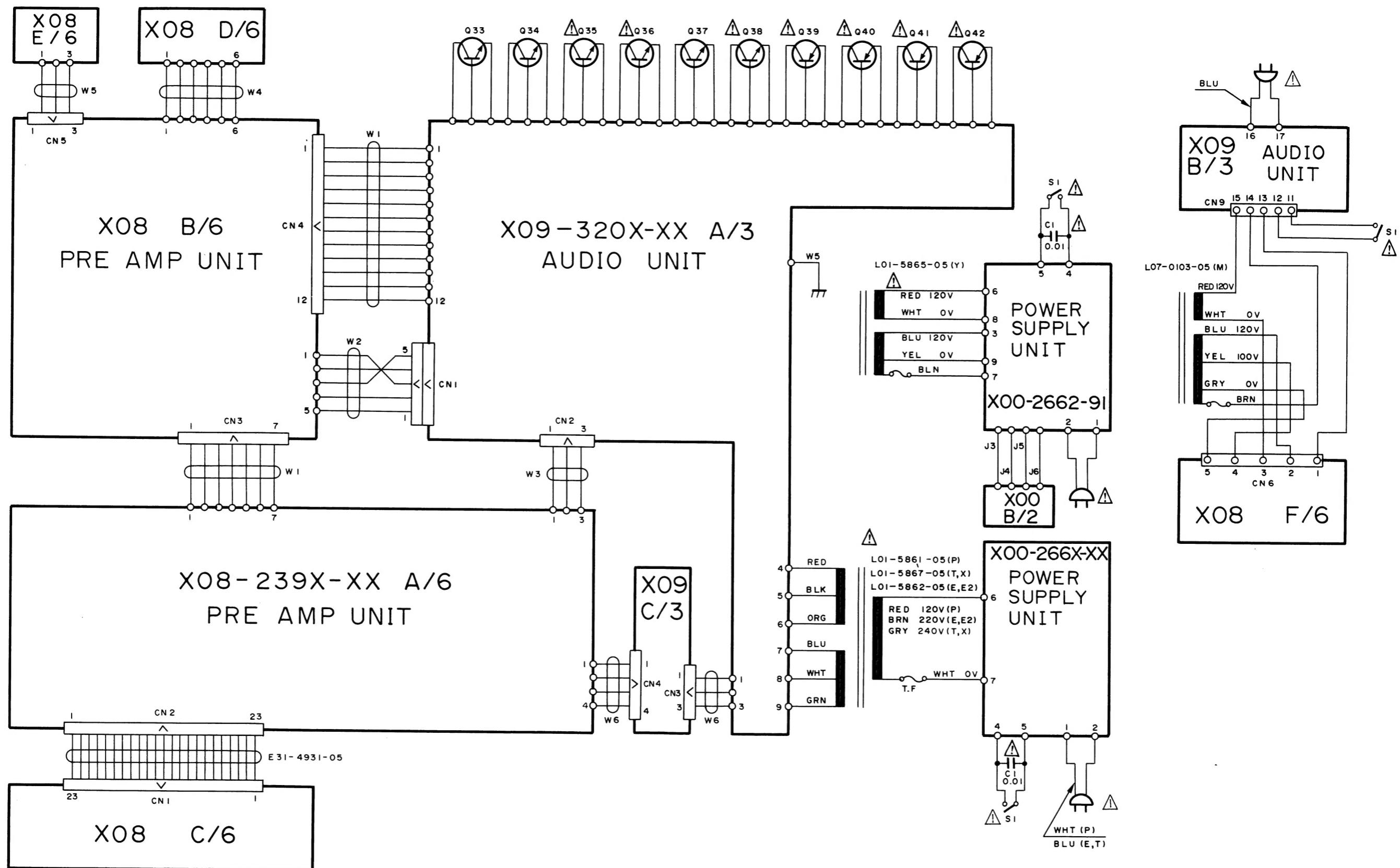
N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE L'AMPLIFICATEUR	POINT L'ALIGNEMENT	ALIGNER POUR	FIG.
1	COURANT DE POLARISATION	—	Connecter un voltmètre de CC sur CP1 (G) (CP3) CP2 (D) (CP4)	VOLUME: 0	VR1 (G) VR2 (D)	15 mV	(a)

NR.	GEGENSTAND	EINGANGSEINSTELLUNG	AUSGANGSEINSTELLUNG	VERSTÄRKEREINSTELLUNG	ABGLEICHPUNKTE	ABGLEICHEN FÜR	ABB.
1	LEERLAUFSTROM	—	Einen Gleichspannungsmesser über CP1 (L)(CP3) CP2 (R) (CP4) anschließen	VOLUME: 0	VR1 (L) VR2 (R)	15 mV	(a)



WIRING DIAGRAM

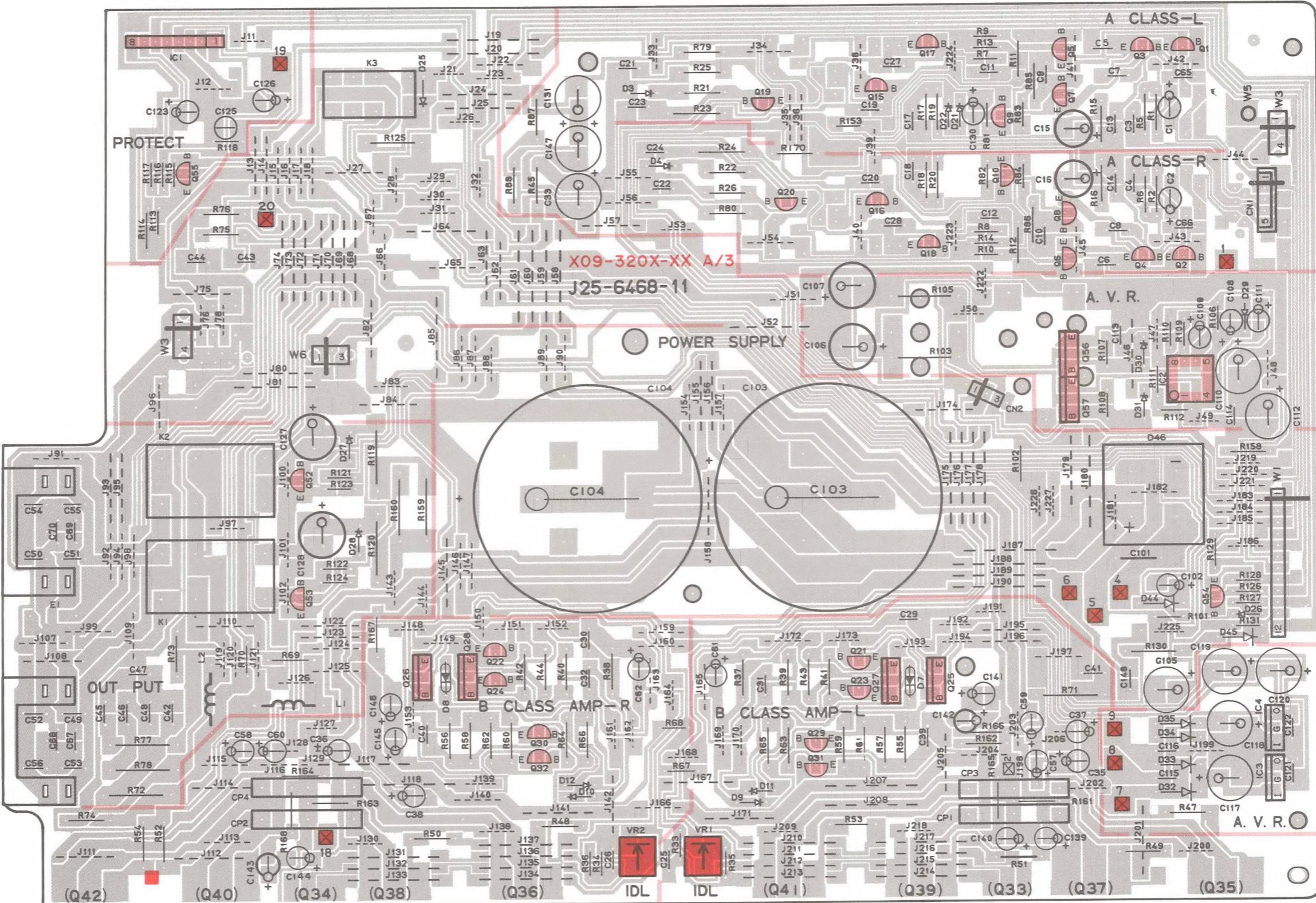
KA-5020 KA-5020



DESTINATION UNIT NO	P	Y	M	X , T	E	E2
X00 - 266	I-01	2-91	NO.		2 - 71	
X08 - 239	2-72		0-21	2-72		
X09 - 320	I-01			I-01	2-71	2-72

PC BOARD (Component Side View)

AUDIO UNIT

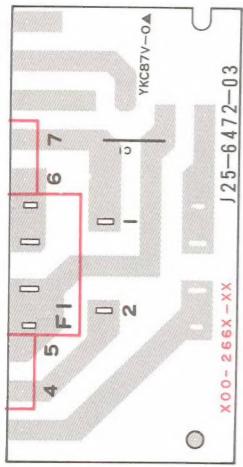


Refer to the schematic diagram for the values of resistors and capacitors.

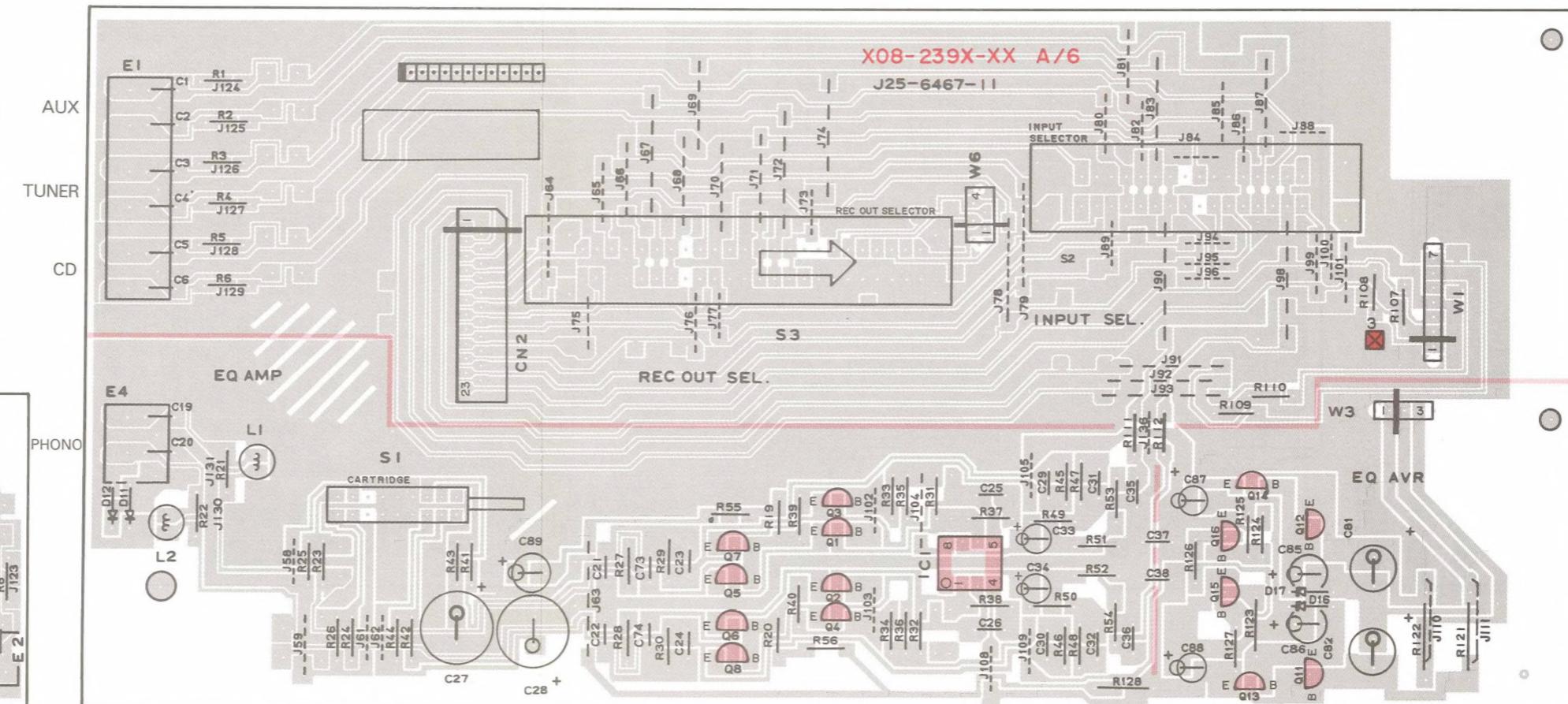
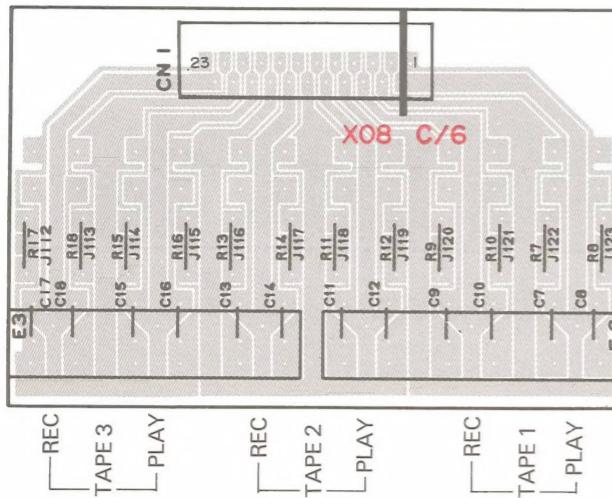
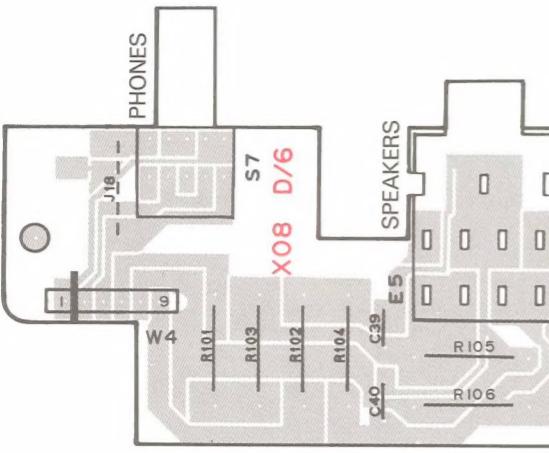
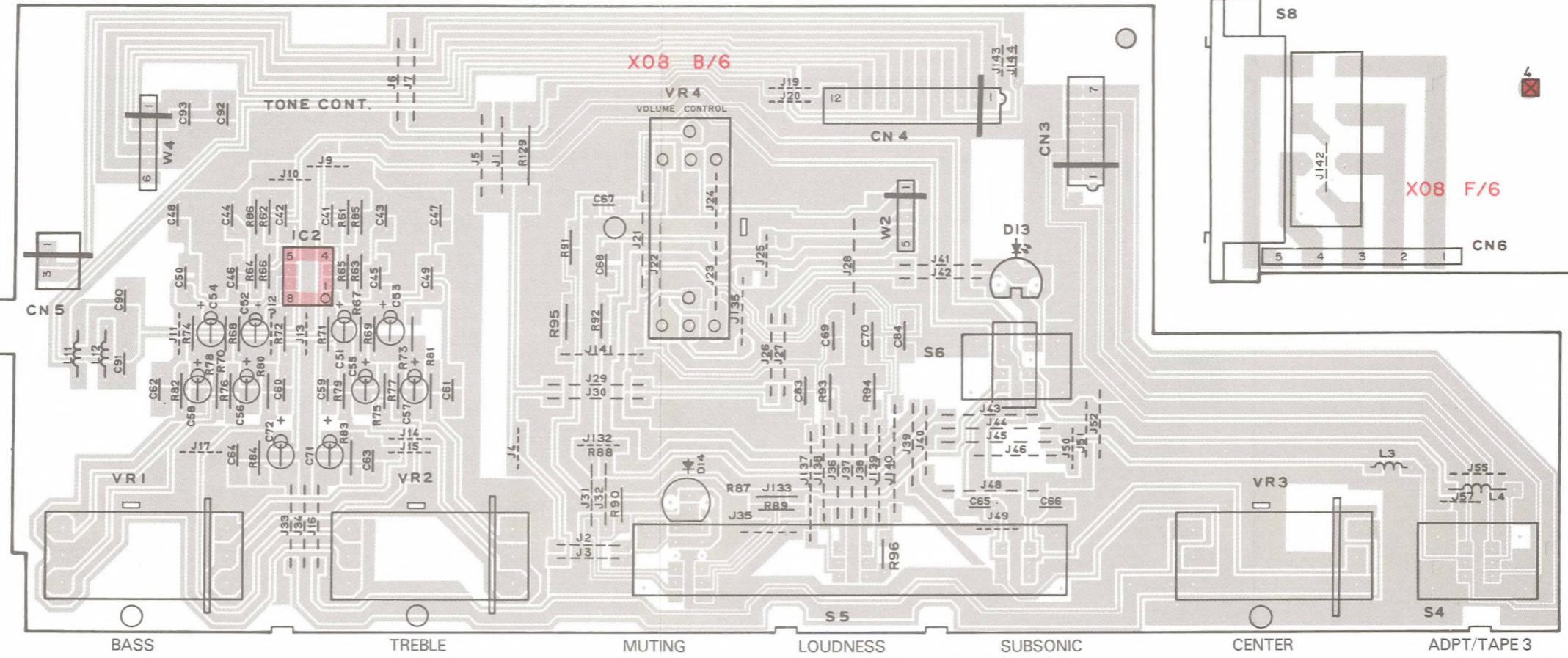
K L M N O P Q R S T

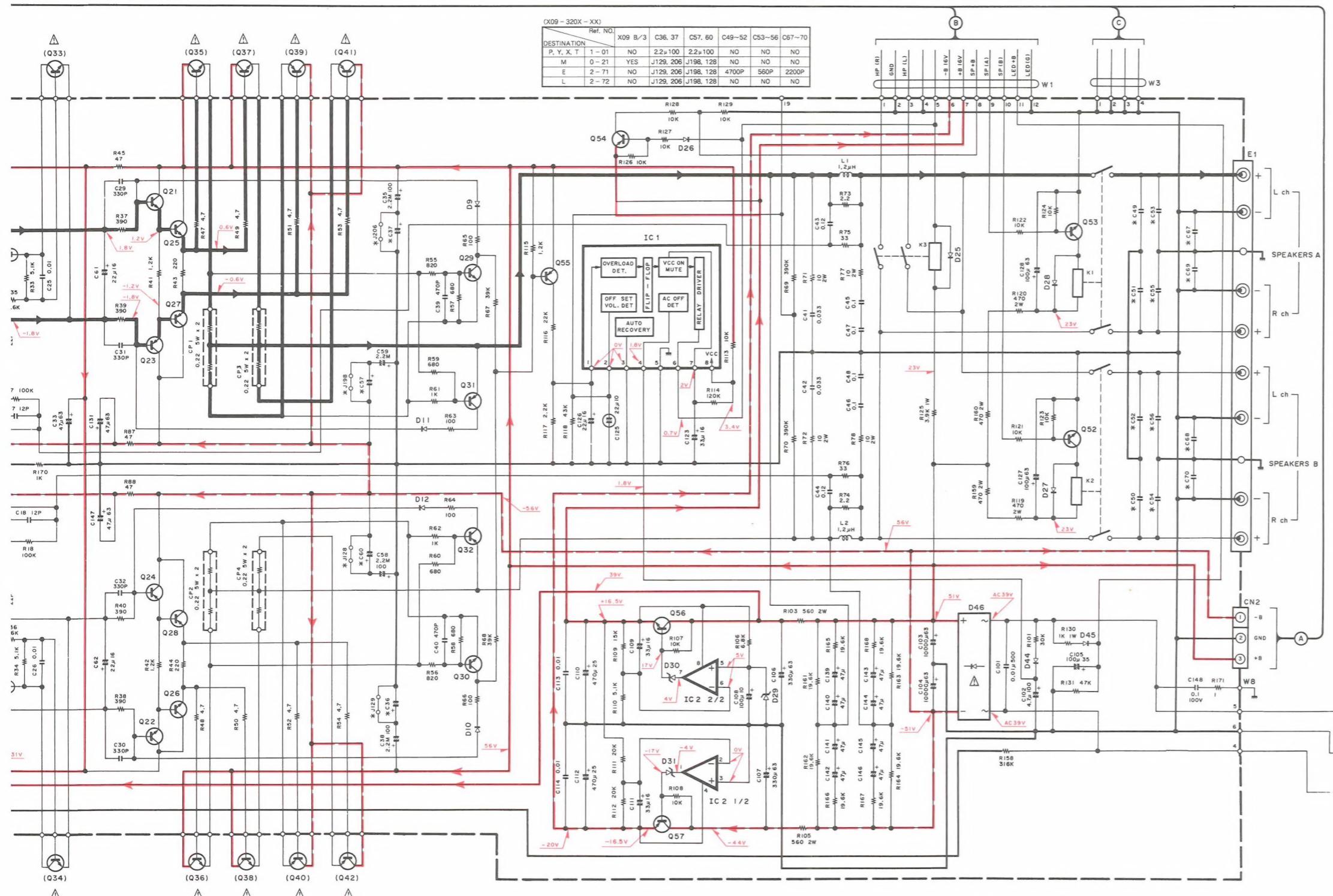
PC BOARD (Component Side View)

POWER SUPPLY UNIT



PRE AMPLIFIER UNIT



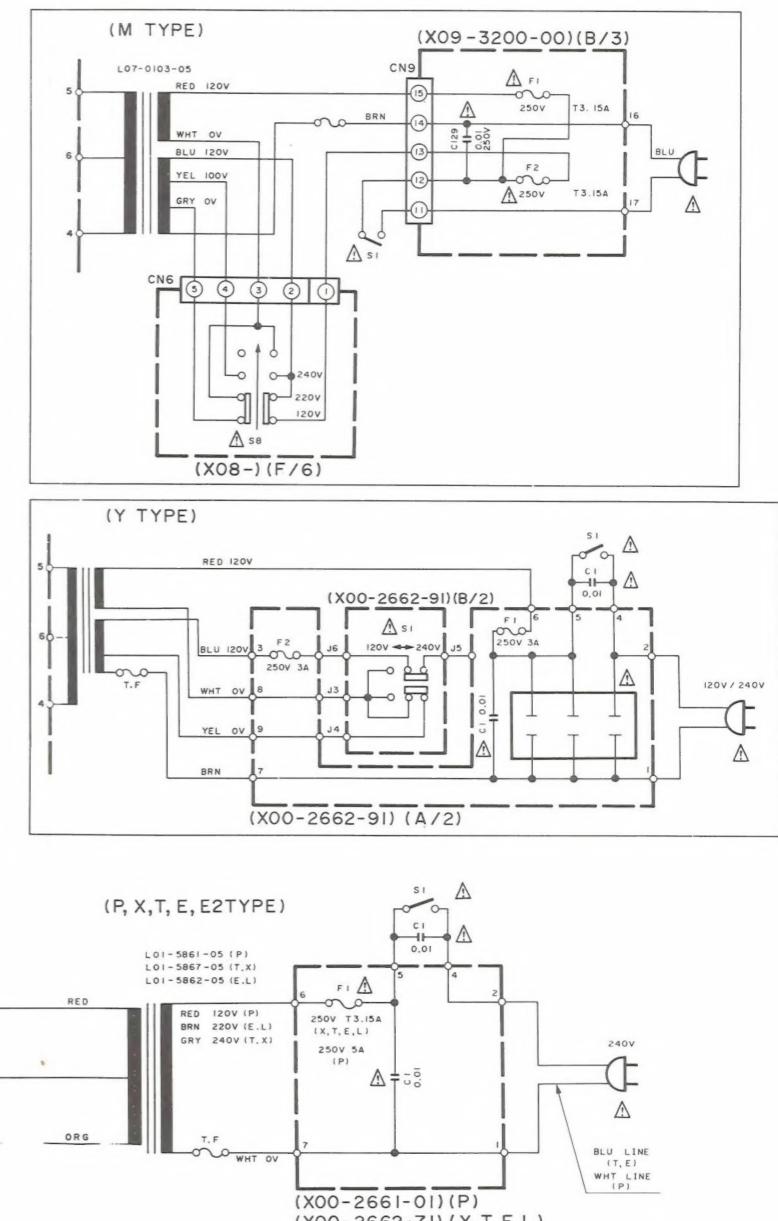


CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

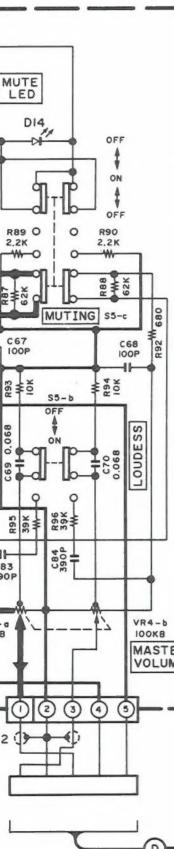
Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

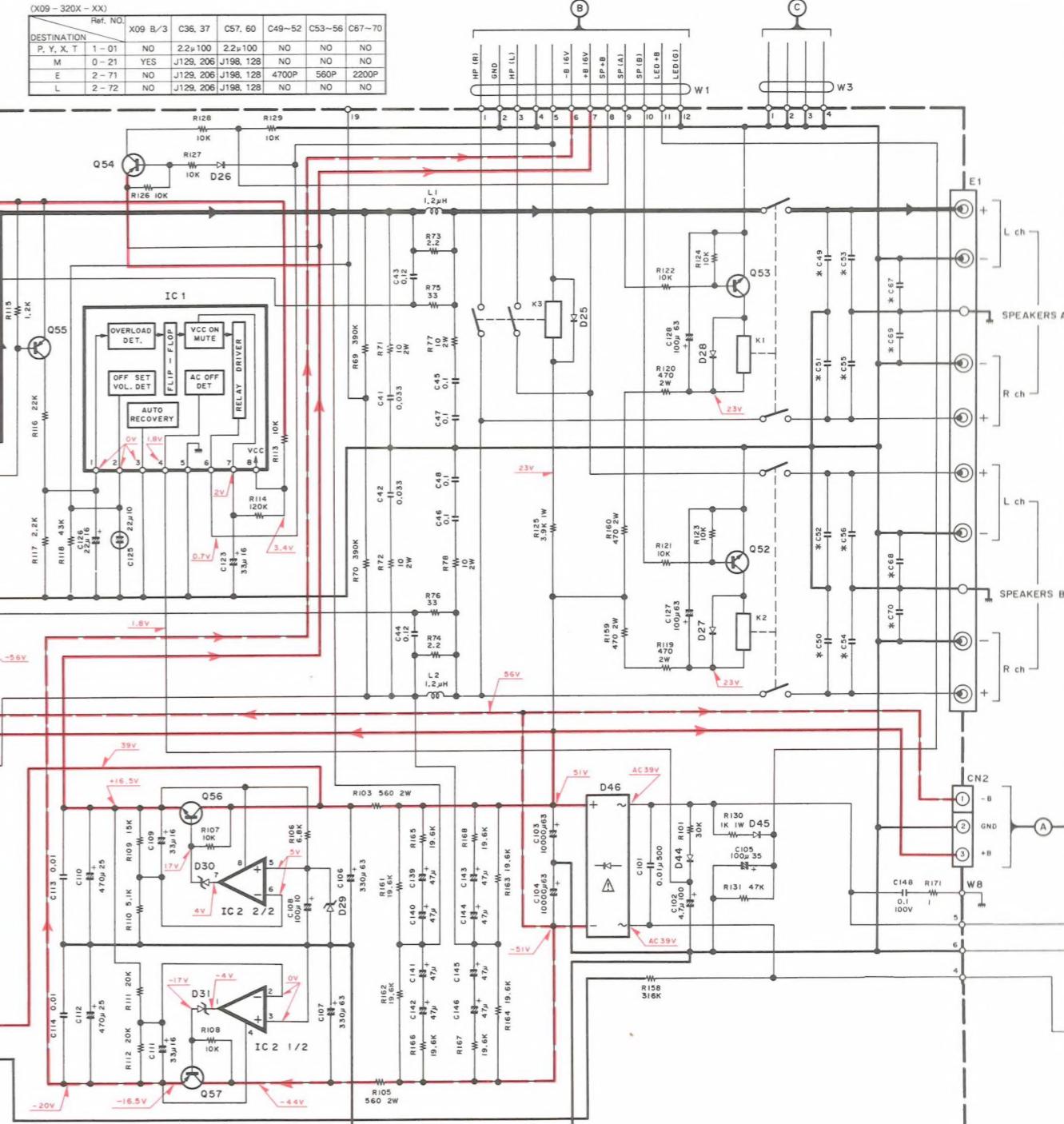


R29, 30	R37, 38	S8
NO	180	S31-2322-05
430	180	S31-2322-05
NO	270	S31-2322-05

1237HA
 A4565D
 .992(F,E)
 .733(A) (Q, P) or 2SA933S(Q, R)
 2632(R, S)
 .1124(R, S)
 .1261(R, S)
 .1123(R, S)
 3944(R, S)
 .1535(R, S)
 1845(F, E)
 1266(G, P)
 941(Q, P)
 15.1S(B2) or RD5.1JS(B2)
 104 or 1SS133
 27Q(A)
 104A or 1SS131
 13N(B2) or RD13ES(B2)
 66B
 B20 * 1



(X09 - 320X - XX)		Ref. No.	X09 B/3	C36, 37	C57, 60	C49-52	C53-56	C67-70
DESTINATION	P, Y, X, T	1 - 01	NO	2.2+100	2.2+100	NO	NO	NO
M	0 - 21	YES	J129, 206	J198, 128	NO	NO	NO	NO
E	2 - 71	NO	J129, 206	J198, 128	4700P	560P	2200P	
L	2 - 72	NO	J129, 206	J198, 128	NO	NO	NO	NO



SIGNAL LINE
 GND LINE
 +B LINE
 -B LINE

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

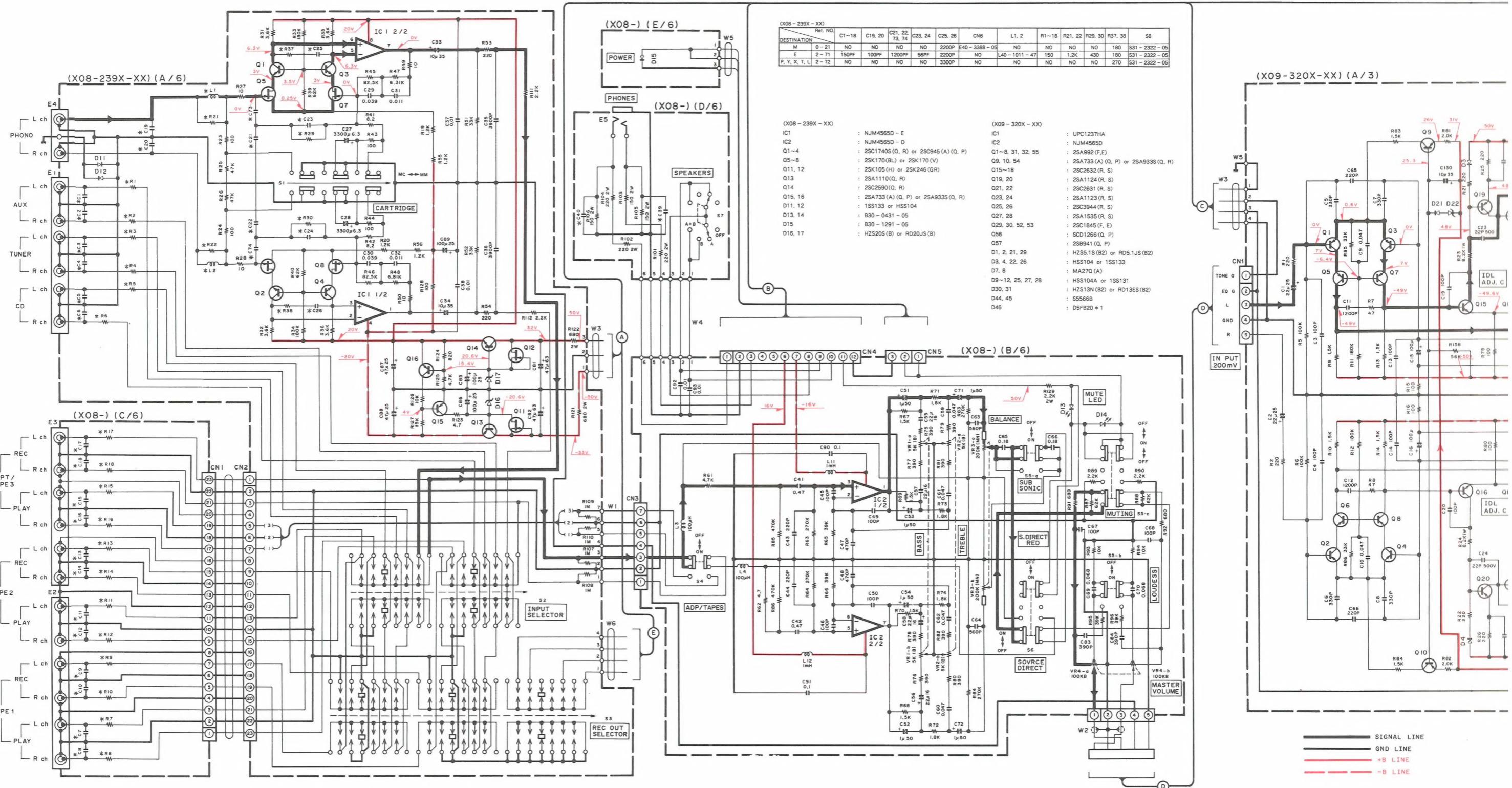
DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

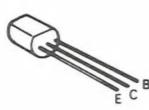
Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

2SK105
2SK170





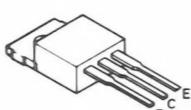
2SA1123
2SA1124
2SA733 (A)
2SA992
2SC1845
2SC2631
2SC2632
2SC945 (A)



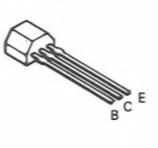
2SA1110
2SC2590



2SD1266



2SA933S
2SC1740S



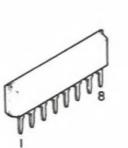
2SA1535
2SB941
2SC3944



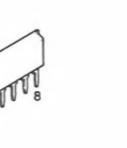
NJM4565D
NJM4565D-D
NJM4565D-E



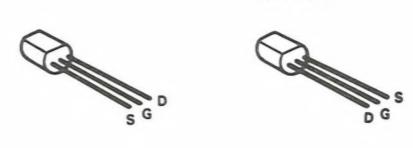
UPC1237HA



2SK246

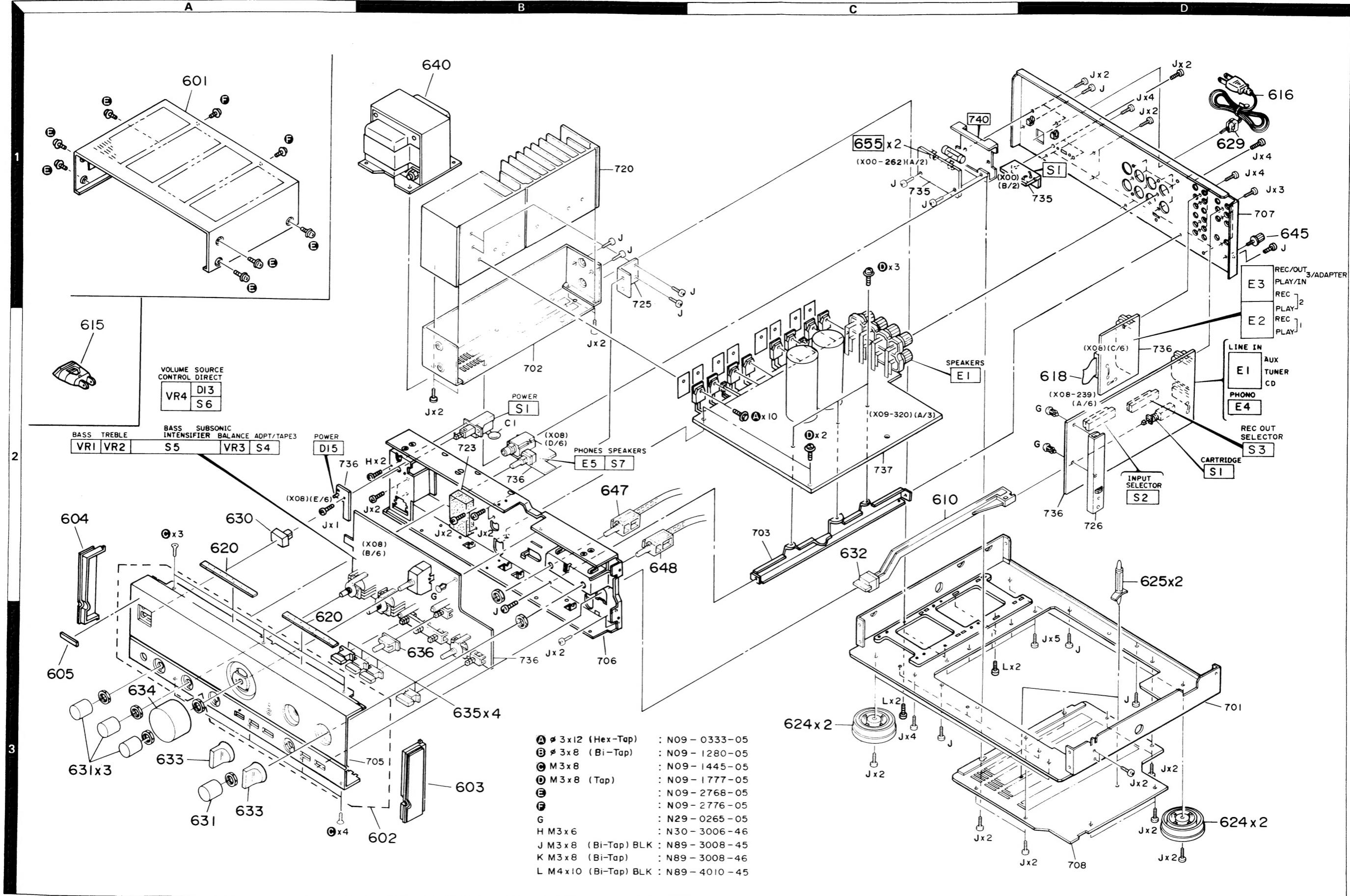


2SK105
2SK170



SIGNAL LINE
GND LINE
+B LINE
-B LINE

KA-5020 KA-5020 EXPLODED VIEW



PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

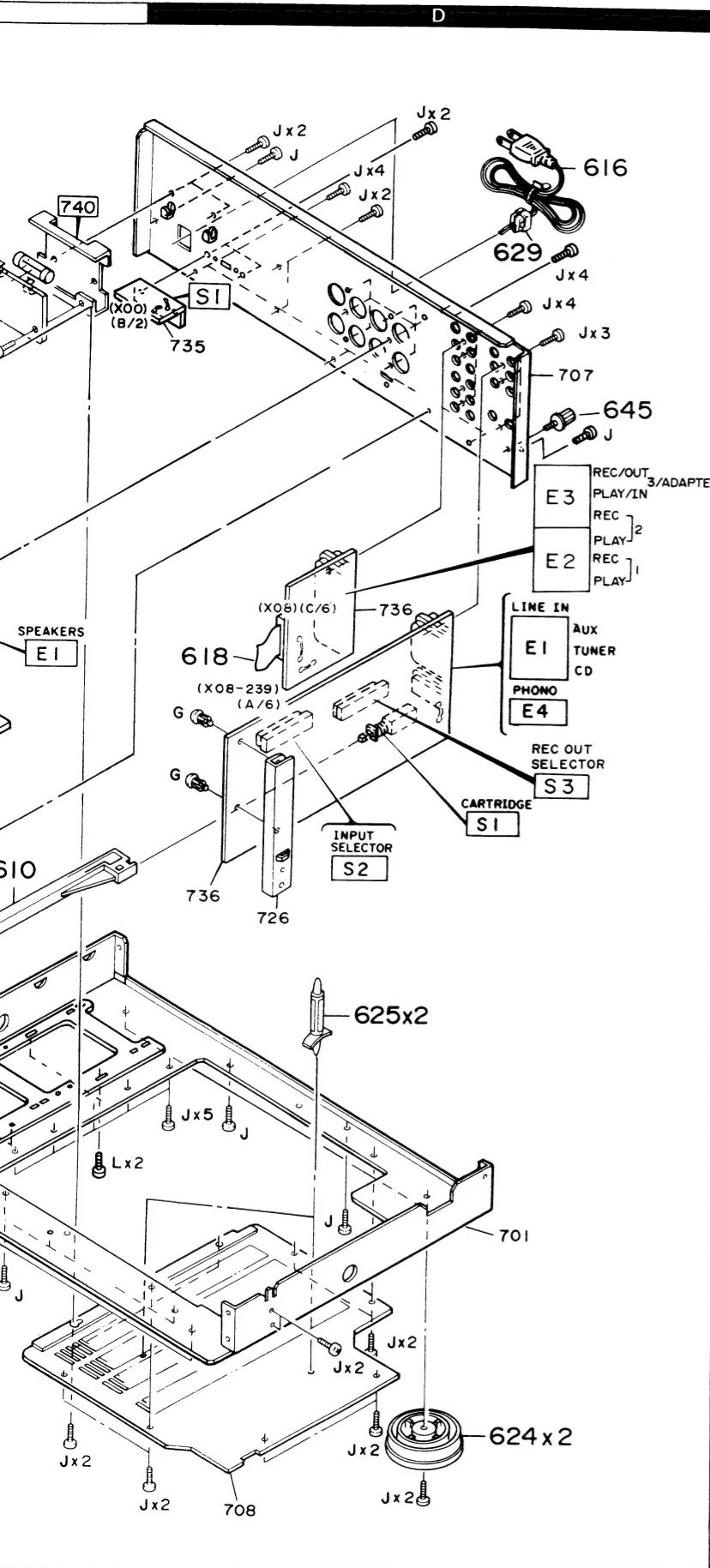
Telle ohne Parts No. werden nicht geliefert.

* New Parts

Parts without Parts No. a

Les articles non mentionn

Telle ohne Parts No. wer



Parts with the exploded numbers larger than 700 are not supplied.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
KA-5020						
601	1A	*	A01-1880-01	METALLIC CABINET		
602	3A, 3B	*	A20-6043-02	PANEL ASSY		
603	3B	*	B07-1950-04	SIDE ESCUTCHEON(L)		
604	2A, 3A	*	B07-1951-04	SIDE ESCUTCHEON(R)		
605	3A	*	B43-0287-04	KENWOOD BADGE		
-	-	*	B46-0094-03	WARRANTY CARD	Y	
-	-	*	B46-0095-03	WARRANTY CARD	Y	
-	-	*	B46-0096-13	WARRANTY CARD	X	
-	-	*	B46-0121-03	WARRANTY CARD	P	
-	-	*	B46-0122-13	WARRANTY CARD	EE2	
-	-	*	B46-0143-13	WARRANTY CARD	T	
-	-	*	B58-0513-04	CAUTION CARD (PRESET220-240)	Y	
-	-	*	B58-0803-13	CAUTION CARD	E	
-	-	*	B60-0128-00	INSTRUCTION MANUAL (ENGLISH)	PEE2	
-	-	*	B60-0129-00	INSTRUCTION MANUAL (FRENCH)	M	
-	-	*	B60-0130-00	INSTRUCTION MANUAL (SPA, CHA)	EE2	
-	-	*	B60-0131-00	INSTRUCTION MANUAL (GE, DU, IT)		
C1	2B		C91-0971-05	FILM 0.01UF 250WV		
610	2C		D21-1505-03	EXTENSION SHAFT		
615	2A		E03-0115-05	AC PLUG ADAPTER	M	
616	1D		E30-0459-05	AC POWER CORD	MEE2	
616	1D		E30-0812-05	AC POWER CORD	Y	
616	1D		E30-0974-05	AC POWER CORD	P	
616	1D		E30-1341-05	AC POWER CORD	X	
616	1D		E30-1416-05	AC POWER CORD	T	
618	2D		E31-4931-05	FLAT CABLE		
F1			F05-3121-05	FUSE (SEMKO) (250V T3.15A)	XTEE2	
F1			F06-5022-05	FUSE (UL) (250V 5A)	P	
F1	, 2		F05-2521-05	FUSE (250V 2.5A)	Y	
F1	, 2		F05-3121-05	FUSE (SEMKO) (250V T3.15A)	M	
620	2A, 3A	*	G10-0402-04	CUSHION (110X5X1)		
-	-	*	H01-8806-04	ITEM CARTON CASE		
-	-	*	H10-3832-02	POLYSTYRENE FOAMED FIXTURE		
-	-	*	H10-3833-12	POLYSTYRENE FOAMED FIXTURE		
-	-	*	H25-0225-04	PROTECTION BAG (850X450X0.03)		
-	-	*	H25-0232-04	PROTECTION BAG (235X350X0.03)		
624	3C, 3D		J02-1002-05	FOOT		
625	2D		J19-0581-05	UNIT HOLDER		
629	1D		J42-0083-05	POWER CORD BUSHING		
-	-		J61-0307-05	WIRE BAND		
630	2A		K27-2004-04	KNOB (POWER)		
631	3A	*	K29-3935-04	KNOB (BASS, TREBLE, SPEAKERS)		
632	3C	*	K29-3932-04	KNOB (CARTRIDGE)		
633	3A	*	K29-3938-04	KNOB (RECOUT SEL, INPUT SEL)		
634	3A	*	K29-3939-04	KNOB (MAIN VR)		
635	3A, 3B	*	K29-3942-04	KNOB (MUT, LOUD, SUB, ADPT/TAPE)	0	
636	3B	*	K29-3506-04	KNOB (SOURCE DIRECT)	P	
640	1B		L01-5861-05	POWER TRANSFORMER	EE2	
640	1B		L01-5862-05	POWER TRANSFORMER		

E: Europe

Y: PX(Far East, Hawaii)

Y: AAFFES(Europe)

K: USA

T: England

X: Australia

P: Canada

M: Other Areas

E2: Scandinavia

▲ indicates safety critical components.

E: Europe

Y: PX(Far East, Hawaii)

Y: AAFFES(Europe)

Ref. No. 参照番号	Address 位置
640	1B
640	1B
640	1B
645	1D
A	2C
B	2B
C	2A, 3A
D	2C
E	1A
F	1A
G	2D, 2B
H	2B
J	1B, 1D
L	3C
647	2B
648	2B
S1	2B
S1	2B
S1	2B
Q33	34
Q35	38
Q39	42
POWER S	
C1	
C1	
650	1C
650	1C
655	1C, 1D
655	1C, 1D
K	1C
S1	
PRE AMPL	
D13 , 14	
D15	
C1 -18	
C19 , 20	
C21 , 22	
C23 , 24	
C25 , 26	
C27 , 28	
C29 , 30	
C31 , 32	
C33 , 34	
C35 , 36	
C37 , 38	
C39 , 40	
C41 , 42	
C43 , 44	
C45 , 46	
C47 , 48	

KA-5020 KA-5020

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603	3B	*	B07-1950-04	SIDE ESCUTCHEON(L)		
604	2A, 3A	*	B07-1951-04	SIDE ESCUTCHEON(R)		
605	3A	*	B43-0287-04	KENWOOD BADGE		
-			B46-0094-03	WARRANTY CARD	Y	
-			B46-0095-03	WARRANTY CARD	Y	
-			B46-0096-13	WARRANTY CARD	X	
-			B46-0121-03	WARRANTY CARD	P	
-			B46-0122-13	WARRANTY CARD	EE2	
-			B46-0143-13	WARRANTY CARD	T	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	Y	
-			B58-0803-13	CAUTION CARD	E	
-		*	B60-0128-00	INSTRUCTION MANUAL (ENGLISH)	EE2	
-		*	B60-0129-00	INSTRUCTION MANUAL (FRENCH)	M	
-		*	B60-0130-00	INSTRUCTION MANUAL (SPA, CHA)	EE2	
-		*	B60-0131-00	INSTRUCTION MANUAL (GE, DU, IT)		
▲ C1	2B		C91-0971-05	FILM 0.01UF 250WV		
610	2C		D21-1505-03	EXTENSION SHAFT		
▲ 615	2A		E03-0115-05	AC PLUG ADAPTER	M	
▲ 616	1D		E30-0459-05	AC POWER CORD	MEE2	
▲ 616	1D		E30-0812-05	AC POWER CORD	Y	
▲ 616	1D		E30-0974-05	AC POWER CORD	P	
▲ 616	1D		E30-1341-05	AC POWER CORD	X	
▲ 616	1D		E30-1416-05	AC POWER CORD	T	
618	2D		E31-4931-05	FLAT CABLE		
▲ F1			F05-3121-05	FUSE (SEMKO) (250V T3.15A)	XTEE2	
▲ F1			F06-5022-05	FUSE (UL) (250V 5A)	P	
▲ F1 , 2			F05-2521-05	FUSE (250V 2.5A)	Y	
▲ F1 , 2			F05-3121-05	FUSE (SEMKO) (250V T3.15A)	M	
620	2A, 3A	*	G10-0402-04	CUSHION (110X5X1)		
-		*	H01-8806-04	ITEM CARTON CASE		
-		*	H10-3832-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H10-3833-12	POLYSTYRENE FOAMED FIXTURE		
-			H25-0225-04	PROTECTION BAG (850X450X0.03)		
-			H25-0232-04	PROTECTION BAG (235X350X0.03)		
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625	2D		J19-0581-05	UNIT HOLDER		
629	1D		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
630	2A		K27-2004-04	KNOB (POWER)		
631	3A	*	K29-3935-04	KNOB (BASS, TREBLE, SPEAKERS)		
632	3C	*	K29-3932-04	KNOB (CARTRIDGE)		
633	3A	*	K29-3938-04	KNOB (RECOUT SEL, INPUT SEL)		
634	3A	*	K29-3939-04	KNOB (MAIN VR)		
635	3A, 3B	*	K29-3942-04	KNOB (MUT, LOUD, SUB, ADPT/TAPE)		
636	3B		K29-3506-04	KNOB (SOURCE DIRECT)		
▲ 640	1B		L01-5861-05	POWER TRANSFORMER	P	
▲ 640	1B		L01-5862-05	POWER TRANSFORMER	EE2	

E: Europe
K: USA
P: Canada
Y: PX(Far East, Hawaii)
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▲ indicates safety critical components.

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti- nation 仕向	Re- marks 備考
POWER SUPPLY UNIT (X00-2661-01: P, 2-71: X, T, E, E2, 2-91: Y)						
640	1B		L01-5865-05	POWER TRANSFORMER	Y	
640	1B	*	L01-5867-05	POWER TRANSFORMER	XT	
640	1B	*	L07-0103-05	POWER TRANSFORMER	M	
645	1D		N08-0128-35	BINDING POST (EARTH)		
A	2C		N09-0333-05	TAPPING SCREW (3X12)		
B	2B		N09-1280-05	TAPTITE SCREW (3X8)		
C	2A, 3A		N09-1445-05	SET SCREW (M3X8)		
D	2C		N09-1777-05	SEMS (TAPTITE SCREW)		
E	1A	*	N09-2768-05	SEMS (TAPTITE SCREW)(4X8)		
F	1A		N09-2776-05	SEMS (TAPTITE SCREW)		
G	2D, 2B		N29-0265-05	PUSH RIVET		
H	2B		N30-3006-46	PAN HEAD MACHINE SCREW		
J	1B, 1D		N89-3008-45	BINDING HEAD TAPTITE SCREW		
L	3C		N89-4010-45	BINDING HEAD TAPTITE SCREW		
647	2B		S90-0110-05	REMOTE SWITCH SHAFT(RECOUT)		
648	2B		S90-0111-05	REMOTE SWITCH SHAFT(INPUT SEL)	YMXTE	
▲ S1	2B		S40-1073-05	PUSH SWITCH (POWER SW)	E2	
▲ S1	2B		S40-1073-05	PUSH SWITCH (POWER SW)	P	
▲ S1	2B		S40-1094-05	PUSH SWITCH (POWER SW)		
Q33 , 34			2SC4137F19(V, W)	TRANSISTOR		
Q35 -38		*	2SC4467LB*5	TRANSISTOR		
Q39 -42		*	2SA1694LB*5	TRANSISTOR		
PRE AMPLIFIER UNIT (X08-2392-72: P, Y, X, T, E2, 0-21: M, 2-71: E)						
▲ C1			C91-0971-05	FILM 0.01UF 250WV	PYXTE	
▲ C1			C91-0971-05	FILM 0.01UF 250WV	E2	
▲ 650	1C		E03-0077-05	AC OUTLET	Y	
▲ 650	1C		E03-0078-05	AC OUTLET	P	
655	1C, 1D		J13-0041-05	FUSE CLIP	PY	
655	1C, 1D		J13-0054-05	FUSE CLIP	XTEE2	
K	1C		N89-3008-46	BINDING HEAD TAPTITE SCREW	XTEE2	
▲ S1			S31-2126-05	SLIDE SWITCH (POWER SW)	Y	
D13 , 14			B30-0431-05	LBD(LN21CPH)		
D15			B30-1291-05	LBD(LN21CPSLX(V)-(TA4))		
C1 -18			CF92FV1H151K	MF 150PF K	E	
C19 ,20			CF92FV1H101K	MF 100PF K		
C21 ,22			CF92FV1H122J	MF 1200PF J	E	
C23 ,24			CC45FSL1H560J	CERAMIC 56PF J		
C25 ,26			CF92FV1H222J	MF 2200PF J		
C27 ,28			CB04KW0J332M	ELECTRO 3300UF 6.3WV		
C29 ,30			CF92FV1H393J	MF 0.039UF J		
C31 ,32			CF92FV1H113J	MF 0.011UF J		
C33 ,34			CE04KW1V100M	ELECTRO 10UF 35WV		
C35 ,36			CF92FV1H392J	MF 3900PF J		
C37 ,38			CF92FV1H103J	MF 0.010UF J		
C39 ,40			CF92FV1H102J	MF 1000PF J	E	
C41 ,42			CF92FV1H474J	MF 0.47UF J		
C43 ,44			CF92FV1H221K	MF 220PF K		
C45 ,46			CF92FV1H101K	MF 100PF K		
C47 ,48			CF92FV1H471J	MF 470PF J		

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C49 , 50			CF92FV1H101K	MF ELECTRO 100PF K		
C51 -54			CE04KW1H010M	MF ELECTRO 1.0UF 50WV		
C55 -58			CE04KW1C220M	MF ELECTRO 22UF 16WV		
C59 -62			CF92FV1H473J	MF 0.047UF J		
C63 , 64			CK45FB1H561K	CERAMIC 560PF K		
C65 , 66			CF92FV1H184J	MF 0.18UF J		
C67 , 68			CF92FV1H101K	MF 100PF K		
C69 , 70			CF92FV1H683J	MF 0.068UF J		
C71 , 72			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C73 , 74			CF92FV1H122J	MF 1200PF J	E	
C81 , 82			CE04KW1J470M	ELECTRO 47UF 63WV		
C83 , 84			CF92FV1H391K	MF 390PF K		
C85 , 86			CE04KW1E101M	ELECTRO 100UF 25WV		
C87 , 88			CE04KW1E470M	ELECTRO 47UF 25WV		
C89			CE04KW1E101M	ELECTRO 100UF 25WV		
C90 , 91			CF92FV1H104J	MF 0.10UF J		
C92 , 93			CF92FV1H103J	MF 0.010UF J		
CN1			E10-2304-05	FLAT CABLE CONNECTOR		
CN2			E10-2303-05	FLAT CABLE CONNECTOR		
E1 -3			E13-0621-05	PHONE JACK (AUX, CD, TUNER, TAPE)		
E4			E13-0294-05	PHONE JACK (PHONE)		
E5			E11-0189-05	PHONE JACK (PHONE)		
L1 , 2			L40-1011-47	SMALL FIXED INDUCTOR(100UH,K)		
L3 , 4			L40-1011-17	SMALL FIXED INDUCTOR(100UH,K)		
L11 , 12			L40-1021-14	SMALL FIXED INDUCTOR(1.0MH,K)	E	
R45 , 46			RN14BK2C8252FTS	RN 82.5K F 1/6W		
R47 , 48			RN14BK2C6811FTS	RN 6.81K F 1/6W		
R101-104	*		RS14DB3D221JTE	FL-PROOF RS 220 J 2W		
R105,106			RS14DB3D151JTE	FL-PROOF RS 150 J 2W		
R121,122			RS14DB3D681JTE	FL-PROOF RS 680 J 2W		
R123			RD14AB2B4R7JTS	FL-PROOF RD 4.7 J 1/4W		
R128			RD14AB2E101JTS	FL-PROOF RD 100 J 1/4W		
R129			RS14DB3D222JTE	FL-PROOF RS 2.2K J 2W		
VR1 , 2			R06-2018-05	POTENTIOMETER(BASS, TREBLE)		
VR3			R06-5166-05	POTENTIOMETER(BALANCE)		
VR4			R06-5172-05	POTENTIOMETER(VOLUME)		
S1			S40-6036-05	PUSH SWITCH (CARTRIDGE)		
S2			S90-0038-05	SLIDE SWITCH (INPUT SELECTOR)		
S3			S90-0078-05	SLIDE SWITCH (RECOUT SELECTOR)		
S4			S40-2351-05	PUSH SWITCH (ADPT/TAPE3)		
S5			S42-3115-05	MULTIPLE PUSH SWITCH(LUD, MUT)		
S6			S40-4074-05	PUSH SWITCH (S-DIRECT)		
S7			S29-2035-05	ROTARY SWITCH(SPEAKERS)		
S8			S31-2322-05	SLIDE SWITCH (VOLTAGE SELECT)	M	
D11 , 12			HSS104	DIODE		
D11 , 12			ISS133	DIODE		
D16 , 17			HZS20S(B)	ZENER DIODE		
D16 , 17			RD20JS(B)	ZENER DIODE		
IC1	*		NJM4565D-E	IC(OP AMP X2)		
IC2			NJM4565D-D	IC(OP AMP X2)		
Q1 -4			2SC1740S(Q,R)	TRANSISTOR		
Q1 -4			2SC945(A)(Q,P)	TRANSISTOR		
Q5 -8			2SK170(BL)	FET		

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Q5 -8			2SK170(V)	FET		
Q11 , 12			2SK105(H)	FET		
Q11 , 12			2SK246(GR)	FET		
Q13			2SA1110(Q,R)	TRANSISTOR		
Q14			2SC2590(Q,R)	TRANSISTOR		
Q15 , 16			2SA733(A)(Q,P)	TRANSISTOR		
Q15 , 16			2SA933S(Q,R)	TRANSISTOR		
AUDIO UNIT (X09-3200-21: M, 1-01: P, Y, X, T, 2-71: E, 2-72: E2)						
C1 , 2			C90-1814-05	ELECTRO 22UF 25WV		
C3 , 4			CF92FV1H101K	MF 100PF K		
C5 -8			CF92FV1H331K	MF 330PF K		
C9 , 10			CF92FV1H473J	MF 0.047UF J		
C11 , 12			CF92FV1H122J	MF 1200PF J		
C13 , 14			CF92FV1H101K	MF 100PF K		
C15 , 16			C90-1783-05	ELECTRO 1000UF 50WV		
C17 , 18			C91-0167-05	POLYSTY 12PF K		
C19 , 20			CF92FV1H101K	MF 100PF K		
C21 , 22			CF92FV1H221K	MF 220PF K		
C23 , 24			CC45FSL2H220J	CERAMIC 22PF J		
C25 , 26			CF92FV1H103J	MF 0.010UF J		
C27 , 28			C91-0170-05	POLYSTY 22PF K		
C29 -32			CF92FV1H331K	MF 330PF K		
C33			CE04KW1J470M	ELECTRO 47UF 63WV	MEE2	
C35			CE04KW2A2R2M	ELECTRO 2.2UF 100WV	MEE2	
C35 -38			CE04KW2A2R2M	ELECTRO 2.2UF 100WV	PYXT	
C38			CE04KW2A2R2M	ELECTRO 2.2UF 100WV	MEE2	
C39 , 40			CF92FV1H471J	MF 470PF J		
C41 , 42			CF92FV1H333J	MF 0.033UF J		
C43 , 44			CF92FV1H124J	MF 0.12UF J		
C45 -48			CF92FV1H104J	MF 0.10UF J		
C49 -52			CF92FV1H472J	MF 4700PF J	E	
C53 -56			CF92FV1H561J	MF 560PF J	E	
C57 -60			CE04KW2A2R2M	ELECTRO 2.2UF 100WV	PYXT	
C58 , 59			CE04KW2A2R2M	ELECTRO 2.2UF 100WV	MEE2	
C61 , 62			CE04KW1C220M	ELECTRO 22UF 16WV		
C65 , 66			CF92FV1H221K	MF 220PF K		
C67 -70			CF92FV1H222J	MF 2200PF J	B	
C101			CK45FE2H103P	CERAMIC 0.010UF P		
C102			CE04KW2A4R7M	ELECTRO 4.7UF 100WV		
C103, 104	*		C90-1822-05	ELECTRO 10000UF 63WV		
C105			CE04KW1V101M	ELECTRO 100UF 35WV		
C106, 107			CE04KW1J331M	ELECTRO 330UF 63WV		
C108			CE04KW1A101M	ELECTRO 100UF 10WV		
C109			CE04KW1C330M	ELECTRO 33UF 16WV		
C110			CE04DW1E471M	ELECTRO 470UF 25WV		
C111			CE04KW1C330M	ELECTRO 33UF 16WV		
C112			CE04DW1E471M	ELECTRO 470UF 25WV		
C113, 114			CF92FV1H103J	MF 0.010UF J		
C123			CE04KW1C330M	ELECTRO 33UF 16WV		
C125			C90-1333-05	NP-ELEC 22UF 10WV		
C126			CE04KW1C220M	ELECTRO 22UF 16WV		
C127, 128			CE04DW1J101M	ELECTRO 100UF 63WV		
C129	*		C91-1421-05	FILM 0.01UF 250AC	M	
C130			CE04KW1V100M	ELECTRO 10UF 35WV		

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C131			CE04KW1J470M	ELECTRO	47UF	63WV		
C139-141			CE04KW1H470M	ELECTRO	47UF	50WV		
C142, 143			CE04KW1H470M	ELECTRO	47UF	50WV		
C144-146			CE04KW1H470M	ELECTRO	47UF	50WV		
C147			CE04KW1J470M	ELECTRO	47UF	63WV		
E1	*		E20-0839-05	SCREW TERMINAL BOARD(SPEAKERS)			PYMXTE	
E1	*		E20-0840-05	SCREW TERMINAL BOARD(SPEAKERS)			E2	
CN5 -8			J13-0075-05	FUSE CLIP			M	
L1 , 2			L39-0080-15	PHASE-COMPENSATION COIL				
CP1 -4			R90-0187-05	MULTI-COMP	0.22X2	K 5W		
R21 , 22			RD14AB2E221JTS	FL-PROOF RD	220	J 1/4W		
R23 , 24			RS14DB3A822JTE	FL-PROOF RS	8.2K	J 1W		
R25 , 26			RD14AB2E221JTS	FL-PROOF RD	220	J 1/4W		
R37 -40			RD14AB2E391JTS	FL-PROOF RD	390	J 1/4W		
R41 , 42			RD14AB2E122JTS	FL-PROOF RD	1.2K	J 1/4W		
R43 , 44			RD14AB2E221JTS	FL-PROOF RD	220	J 1/4W		
R45			RD14AB2E470JTS	FL-PROOF RD	47	J 1/4W		
R47 -50			RD14AB2E4R7JTS	FL-PROOF RD	4.7	J 1/4W		
R51			RD14GB2E4R7JTS	FL-PROOF RD	4.7	J 1/4W		
R52 -54			RD14AB2E4R7JTS	FL-PROOF RD	4.7	J 1/4W		
R55 , 56	*		RD14AB2E821JTS	FL-PROOF RD	820	J 1/4W		
R57 -60			RD14AB2E681JTS	FL-PROOF RD	680	J 1/4W		
R61 , 62			RD14AB2E102JTS	FL-PROOF RD	1.0K	J 1/4W		
R63 -66			RD14AB2E101JTS	FL-PROOF RD	100	J 1/4W		
R71 , 72			RS14DB3D100JTE	FL-PROOF RS	10	J 2W		
R73 , 74			RD14AB2E2R2JTS	FL-PROOF RD	2.2	J 1/4W		
R75 , 76			RD14AB2E330JTS	FL-PROOF RD	33	J 1/4W		
R77 , 78			RS14DB3D100JTE	FL-PROOF RS	10	J 2W		
R79 , 80			RD14AB2E101JTS	FL-PROOF RD	100	J 1/4W		
R87 , 88	*		RD14AB2E470JTS	FL-PROOF RD	47	J 1/4W		
R102	*		RN14BK2B3163FTS	RN	316K	F 1/4W		
R103			RS14DB3D561JTE	FL-PROOF RS	560	J 2W		
R105			RS14DB3D561JTE	FL-PROOF RS	560	J 2W		
R119, 120			RS14DB3D471JTE	FL-PROOF RS	470	J 2W		
R125			RS14DB3A392JTE	FL-PROOF RS	3.9K	J 1W		
R130			RS14DB3A102JTE	FL-PROOF RS	1.0K	J 1W		
R158	*		RN14BK2B3163FTS	RN	316K	F 1/4W		
R159, 160			RS14DB3D471JTE	FL-PROOF RS	470	J 2W		
R161-168			RN14BK2B1962FTS	RN	19.6K	F 1/4W		
R170			RN14BK2B1001FTS	RN	1.00K	F 1/4W		
VR1 , 2			R12-1085-05	TRIM POT.	2.2K			
K1 , 2	*		S51-2096-05	MAGNETIC RELAY				
K3	*		S51-2090-05	MICRO SWITCH				
D3 , 4			HSS104	DIODE				
D3 , 4			1SS133	DIODE				
D7 , 8			MA27Q(A)	VARISTOR				
D9 -12			HSS104A	DIODE				
D9 -12			1SS131	DIODE				
D21			HSS104	DIODE				
D21			1SS133	DIODE				
D22			HZS5.1S(B2)	ZENER DIODE				
D22			RD5.1JS(B2)	ZENER DIODE				

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D25			HSS104A	DIODE				
D25			1SS131	DIODE				
D26			HSS104	DIODE				
D26			1SS133	DIODE				
D27 , 28			HSS104A	DIODE				
D27 , 28			1SS131	DIODE				
D29			HZS5.1S(B2)	ZENER DIODE				
D29			RD5.1JS(B2)	ZENER DIODE				
D30 , 31			HZS13N(B2)	ZENER DIODE				
D30 , 31			RD13ES(B2)	ZENER DIODE				
D44 , 45			S5566B	DIODE				
D46			D5FB20*1	DIODE				
IC1			UPC1237HA	IC(POWER AMP)				
IC2			NJM4565D	IC(OP AMP X2)				
Q1 - 8			2SA992(F, E)	TRANSISTOR				
Q9 , 10			2SA733(A)(Q, P)	TRANSISTOR				
Q9 , 10			2SA933S(Q, R)	TRANSISTOR				
Q15 - 18			2SC2632(R, S)	TRANSISTOR				
Q19 , 20			2SA1124(R, S)	TRANSISTOR				
Q21 , 22			2SC2631(R, S)	TRANSISTOR				
Q23 , 24			2SA1123(R, S)	TRANSISTOR				
Q25 , 26			2SC3944(R, S)	TRANSISTOR				
Q27 , 28			2SA1535(R, S)	TRANSISTOR				
Q29 , 30			2SC1845(F, E)	TRANSISTOR				
Q31 , 32			2SA992(F, E)	TRANSISTOR				
Q52 , 53			2SC1845(F, E)	TRANSISTOR				
Q54			2SA733(A)(Q, P)	TRANSISTOR				
Q54			2SA933S(Q, R)	TRANSISTOR				
Q55			2SA992(F, E)	TRANSISTOR				
Q56			2SD1266(Q, P)	TRANSISTOR				
Q57			2SB941(Q, P)	TRANSISTOR				

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KA-5020

EXPLODED VIEW

Rated Power Output

80 watts per channel minimum RMS, both channels driven, at 8 Ω from 20 Hz to 20,000 Hz with no more than 0.03% total harmonic distortion

Maximum Continuous Power Output (DIN)

1 kHz at 4 Ω 145 W

Maximum Continuous Power Output (DIN)

1 kHz at 8 Ω 95 W

Maximum Continuous Power Output (IEC/NF)

from 63 Hz to 12,500 Hz, 0.7% Total Harmonic

Distortion at 8 Ω 95 W + 95 W

Dynamic Power

210 W per channel at 2 Ω

175 W per channel at 4 Ω

105 W per channel at 8 Ω

Total Harmonic Distortion

(LINE input to SPEAKER output)

Rated Output Power at 8 Ω,

20 Hz ~ 20,000 Hz 0.03%

1/2 Rated Output Power at 8 Ω,

20 Hz ~ 20,000 Hz 0.02%

Rated Output Power at 8 Ω, 1 kHz

..... 0.002%

Frequency Response

LINE to SPEAKER 5 Hz to 100 kHz +0 dB, -3 dB

PHONO "RIAA" Response

PHONO (MM) Input 20 Hz to 20 kHz ±0.3 dB

PHONO (MC) Input 20 Hz to 20 kHz ±0.3 dB

Signal To Noise Ratio

PHONO (MM) (IHF-A) (IHF'66) ... 87 dB for 2.5 mV input

PHONO (MC) (IHF-A) (IHF'66) ... 69 dB for 0.25 mV input

TUNER/AUX/TAPE/CD

(IHF-A) (IHF'66) 110 dB for 200 mV input

PHONO (MM) (IHF-A) 80 dB

PHONO (MC) (IHF-A) 74 dB

TUNER/AUX/TAPE/CD (IHF-A) 83 dB

PHONO (MM) at Unweighted,

50 mW Output (DIN) 60 dB

TUNER/AUX/TAPE/CD at Unweighted,

50 mW Output (DIN) 62 dB

Filter SUBSONIC 18 Hz - 6 dB/oct

Tone Control

BASS ± 10 dB at 100 Hz

TREBLE ± 10 dB at 10 kHz

Loudness Control + 6 dB at 100 Hz, + 3 dB at 10 kHz

Damping Factor 220/50 Hz at 8 Ω

Channel Separation at 1 kHz (DIN)

PHONO (MM) 60 dB (Terminated with 2.2 kΩ)

TUNER/AUX/TAPE/CD 56 dB
(Terminated with 47 kΩ + 250 pF)

Input Sensitivity/Impedance

PHONO (MM) 2.5 mV 47 kΩ

PHONO (MC) 0.2 mV 100 Ω

TUNER/AUX/TAPE/CD 200 mV 47 kΩ

Phono Maximum Input Level (PHONO to TAPE REC)

MM at 1 kHz 0.03% T.H.D. 150 mV

MC at 1 kHz 0.03% T.H.D. 12 mV

Phono input capacity (DIN) 150 pF

Output Level/Impedance

TAPE REC (Pin) 200 mV 220 Ω

General

Power Consumption

3.1 A Canada Model

300 W UK & European Models

300 W Other Countries

Dimensions W : 440 mm (17-5/16")

H : 148 mm (5-13/16")

D : 396 mm (15-9/16")

Weight (net) 11.8 kg (26.0 lb)

KENWOOD follows a policy of continuous advancements in development.

For this reason specifications may be changed without notice.

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Le système de réduction du bruit de fond est fabriqué sous licence des Dolby Laboratories.

KENWOOD strebt ständige Verbesserungen in der Entwicklung an.

Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

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Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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